

FIG. 1A

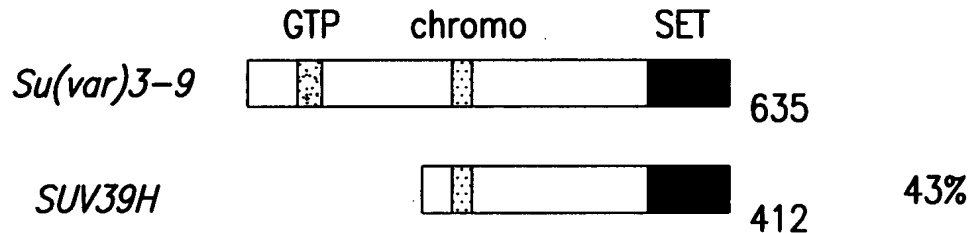


FIG. 2A

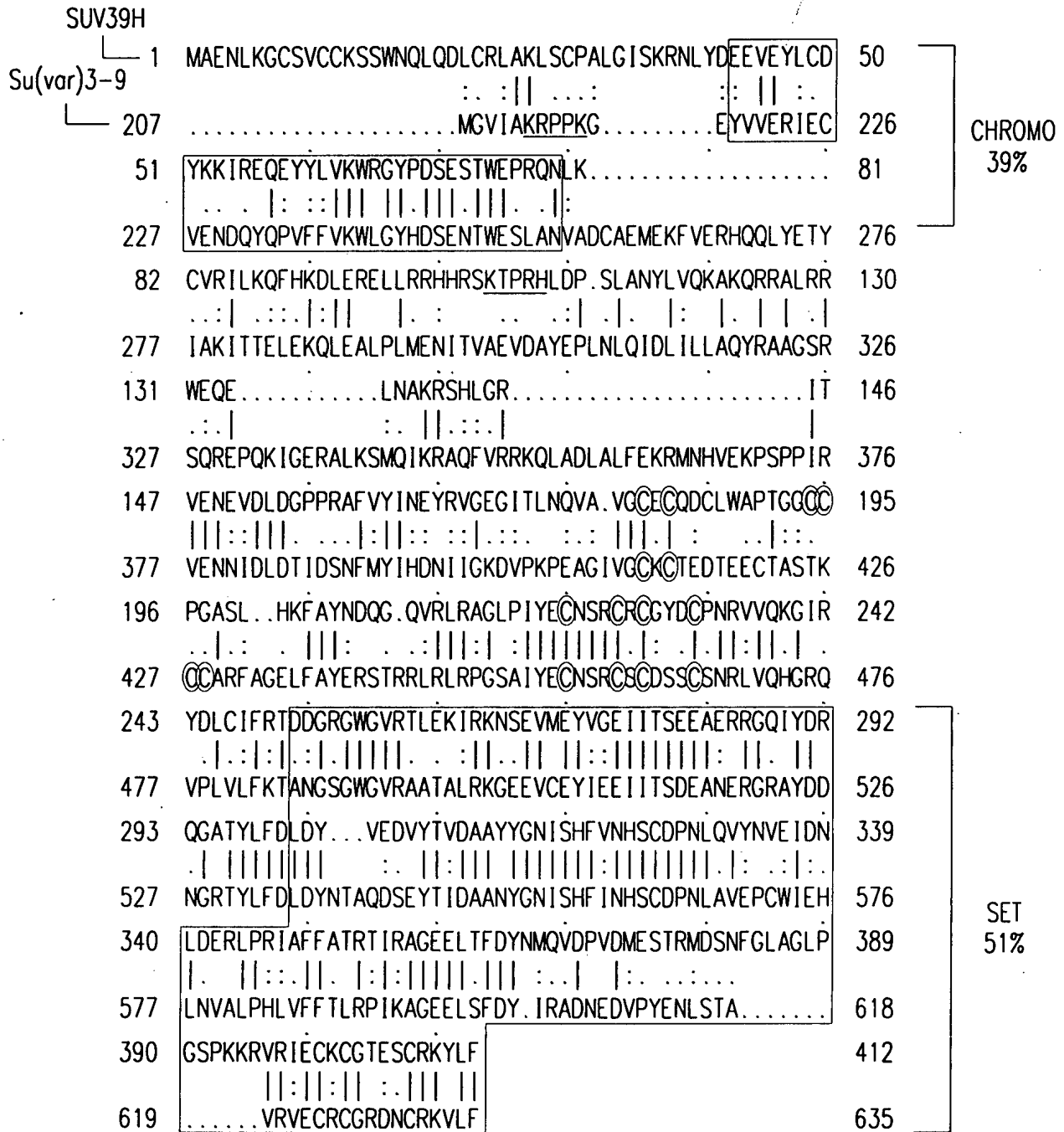


FIG. 2B

E(z)	SDIAGWGI	FL	KEGAQKNEFI	SEYCGEII	ISQ	DEADRRGKVY	DK..YMCSFL	50
EZH2	SDVAGWGI	FI	KDPVQKNEFI	SEYCGEII	ISQ	DEADRRGKVY	DK..YMCSFL	
HRX	SPIHGRGL	FC	KRNIDAGEMV	IEYAGNVIRS	IQTDKREKYY	DSKGIG.CYM		
trx	SHIHGRGL	YC	TKDIEAGEMV	IEYAGELIRS	TLTDKREERY	DSRGIG.CYM		
C26	SRIHGWGL	YA	MESIAPDEMI	VEYIGQTI	IRS	LVAEEREKAY	ERRGIGSSYL	
YHR	SAIHNWGL	YA	LDSIAAKEMI	IEYVGERTRO	PVAENREKRY	LKNGIGSSYL		
Su3-9	ANGSGWGV	RA	ATALRKGEFV	CEYIEEII	ITS	DEANERCKAY	DDNG..RTYL	
SUV39H	DDGRGWGV	RT	LEKIRKNSFV	MEYVGEII	ITS	EEAERRGQIY	DRQG..ATYL	
G9a	TAKMGWGV	RA	LQTIPOGTFI	CEYMGELISD	AEAD...V..	.RED..DSYL		
KG-1	TQNKGWGI	RC	LDDIAKGSFV	CIYAGKIL	TD	DFADKEGL..	.EMG..DEYF	

E(z)	FNLN.....	NDFVVDATRK	GNKIRFANHS	INPNCYAKVM	MVTGDH....	100
EZH2	FNLN.....	NDFVVDATRK	GNKIRFANHS	VNPNCYAKVM	MVNGDH....	
HRX	FRID.....	DSEVVDATMH	GNRARFINHS	CEPNCYSRVI	NIDGQK....	
trx	FKID.....	DNLVVDATMR	GNAARFINHC	CEPNCYSKV	DILGHK....	
C26	FRID.....	LHHVIDATKR	GNFARFINHS	CDPNCYAKVL	TIEGEK....	
YHR	FRVD.....	ENTVIDATKK	GGIARFINHC	CDPNCTAKII	KVGRR....	
Su3-9	FOLDYNTAQD	SEYTI DAANY	GNISHFINHS	CDPNLAVFPC	WIEHLNVALP	
SUV39H	FOLDY...VE	DVYTVDAAYY	GNISHFVNHS	CDPNLQVYNV	FIDNLDERLP	
G9a	FOLDNK..DG	EVYCIDARYY	GNISRFINHL	CDPNIIPVRV	FMLHQDLRFP	
KG-1	ANLDHI..ES	VEYIIDAKLE	GNLGRYLNHS	CSPNLFVQNV	FVDTHDLRFP	

E(z)	RIGIFAKRAI	QPGEELFFDY	..RYGPTEQL	K....FVGI	EREMEIV*	150
EZH2	RIGIFAKRAI	QTGEELFFDY	..RYSQADAL	K....YVGI	EREMEIP*	
HRX	HIVIFAMRKI	YRGEELTYDY	..KFPIE.DA	SNKLPCNCGA	KKCRKFLN*	
trx	HIIFAVRRI	VQGEELTYDY	..KPFPE.D.	EKIPCSGGS	KRCRKYLN*	
C26	RIVIIYSRTIII	KKGEEITYDY	..KFPIE...	DDKIDCLCGA	KTCRGYLN*	
YHR	RIVIIYALRDI	AASEELTYDY	..KFEREKDD	EERLPCLCGA	PNCKGFLN*	
Su3-9	HLVFFTLRPI	KAGEELSFDY	.IRADNEDVP	YENLSTA...	
SUV39H	RTIAFFATRTI	RAGEELTFDY	NMQVDPVDM	STRMDSNFGL	AGLPGSPKKR	
G9a	RTIAFFSSROT	RTGEELGFDY	GDRFW..DIK	SKYFTCQCGS	EKCKHSAEAI	
KG-1	WMAFFASKRI	RAGTELTWDY	NYEVG..SVE	GKELLCCCGA	IECR.....	

E(z)
EZH2
HRX
trx
C26
YHR

Su3-9 VRVECRCGRD NCRKVLF*
SUV39H VRIECKCGTE SCRKYLF*
G9a ALEQSRLARL DPHPELLPEL GSLPPVNT*
KG-1GRL*

FIG.5

FIG. 6A

1141	GAGGCCG CAGAAGAGGACGGCTTCCAATAACAGTAGCAGGCCAGCACCCCCACCATT G R R R G R L P N N S S R P S T P T I N	1200
1201	ATGTGCTGGAATCAAAGGATACAGACAGTGATAGGGAAGCAGGACTGAAACGGGGGAG V L E S K D T D S D R E A G T E T G G E	1260
1261	AGAACAATGATAAAGAAGAAGAAGAGAAGAAAGATGAACTTCGAGCTCCTCTGAAGCAA N N D K E E E E K K D E T S S S S E A N	1320
1321	ATTCTCGGTGTCAAACACCAATAAAGATGAAGCCAAATATTGAACCTCCTGAGAATGTGG S R C Q T P I K M K P N I E P P E N V E	1380
1381	AGTGGAGTGGTGCTGAAGCCTCAATGTTTAGAGTCCTCAITGGCACTTACTATGACAATT W S G A E A S M F R V L I G T Y Y D N F	1440
1441	TCTGTGCCATTGCTAGGTTAATTGGGACCAAAACATGTAGACAGGTGTATGAGTTTAGAG C A I A R L I G T K T C R Q V Y E F R V	1500
1501	TCAAAGAATCTAGCATCATAGCTCCAGCTCCCGCTGAGGATGTGGATACTCCTCCAAGGA K E S S I I A P A P A E D V D T P P R K	1560
1561	AAAAGAAGAGGAAACACCGTTGTGGGCTGCACACTGCAGAAAGATACAGCTGAAAAAGG K K R K H R L W A A H C R K I Q L K K D	1620
1621	ACGGCTCCTCTAACCATGTTTACAACATCAACCCTGTGATCATCCACGGCAGCCTTGTG G S S N H V Y N Y Q P C D H P R Q P C D	1680
1681	ACAGTTCGTGCCCTTGTGTGATAGCACAAAATTTTTGTGAAAAGTTTTGTCAATGTAGTT S S C P C V I A Q N F C E K F C Q C S S	1740
1741	CAGAGTGTCAAACCGCTTTCCGGGATGCCGCTGCAAAGCACAGTCCAACACCAAGCAGT E C Q N R F P G C R C K A Q C N T K Q C	1800
1801	GCCCGTGCTACCTGGCTGTCCGAGAGTGTGACCCTGACCTCTGTCTTACTTGTGGAGCCG P C Y L A V R E C D P D L C L T C G A A	1860
1861	CTGACCATTGGGACAGTAAAAATGTGTCTGCAAGAACTGCAGTATTCAGCGGGCTCCA D H W D S K N V S C K N C S I Q R G S K	1920
1921	AAAAGCATCTATTGCTGGCACCATCTGACGTGGCAGGCTGGGGATTTTTATCAAAGATC K H L L L A P S D V A G W G I F I K D P	1980
1981	CTGTGCAGAAAAATGAATTCATCTCAGAATACTGTGGAGAGATTATTTCTCAAGATGAAG V Q K N E F I S E Y C G E I I S Q D E A	2040
2041	CTGACAGAAGAGGGAAGTGTATGATAAATACATGTGCAGCTTTCTGTTCAACTGAACA D R R G K V Y D K Y M C S F L F N L N N	2100
2101	ATGATTTTGTGGTGGATGCAACCCGCAAGGTAACAAAATTGTTTTGCAATCATTCCG D F V V D A T R K G N K I R F A N H S V	2160
2161	TAAATCCAACTGCTATGCAAAAGTTATGATGGTTAACGGTGATCACAGGATAGGTATT N P N C Y A K V M M V N G D H R I G I F	2220
2221	TTGCCAAGAGAGCCATCCAGACTGGCGAAGAGCTGTTTTTGTATTACAGATACAGCCAGG A K R A I Q T G E E L F F D Y R Y S Q A	2280

FIG. 6B

SUV39H length: 2732bp (coding: 45-1284)

1 TCGCGAGGCCGCTAGGCCGAATGTCGTTAGCCGTGGGAAAGATGGCGAAAATTTAA 60
M A E N L K
61 AAGGCTGCAGCGTGTGTTGCAAGTCTTCTTGAATCAGCTGCAGGACCTGTGCCGCTGG 120
G C S V C C K S S W N Q L Q D L C R L A
121 CCAAGCTCTCCTGCCCTGCCCTCGGTATCTCTAAGAGGAACCTCTATGACTTTGAAGTCG 180
K L S C P A L G I S K R N L Y D F E V E
181 AGTACCTGTGCGATTACAAGAAGATCCGCGAACAGGAATATTACCTGGTGAATGGCGTG 240
Y L C D Y K K I R E Q E Y Y L V K W R G
241 GATATCCAGACTCAGAGAGCACCTGGGAGCCACGGCAGAATCTCAAGTGTGTGCGTATCC 300
Y P D S E S T W E P R Q N L K C V R I L
301 TCAAGCAGTTCACAAGGACTTAGAAAGGGAGCTGCTCCGCGGCACCACCGGTCAAAGA 360
K Q F H K D L E R E L L R R H H R S K T
361 CCCCCGGCACCTGGACCCAAGCTTGCCAACTACCTGGTGCAGAAGGCCAAGCAGAGGC 420
P R H L D P S L A N Y L V Q K A K Q R R
421 GGGCGCTCCGTCCGTGGGAGCAGGAGCTCAATGCCAAGCGCAGCCATCTGGGACGCATCA 480
A L R R W E Q E L N A K R S H L G R I T
481 CTGTAGAGAATGAGGTGGACCTGGACGGCCCTCCGCGGGCCTTCTGTACATCAATGAGT 540
V E N E V D L D G P P R A F V Y I N E Y
541 ACCGTGTTGGTGAGGGCATCACCTCAACCAGGTGGCTGTGGGCTGCGAGTGCCAGGACT 600
R V G E G I T L N Q V A V G C E C Q D C
601 GTCTGTGGGCACCCACTGGAGGCTGCTGCCCGGGGGCGTCACTGCACAAGTTTGCCTACA 660
L W A P T G G C C P G A S L H K F A Y N
661 ATGACCAGGGCCAGGTGCGGCTTCGAGCCGGCTGCCCATCTACGAGTGCAACTCCCGCT 720
D Q G Q V R L R A G L P I Y E C N S R C
721 GCGCTGCGGCTATGACTGCCCAAATCGTGTGTACAGAAGGTATCCGATATGACCTCT 780
R C G Y D C P N R V V Q K G I R Y D L C
781 GCATCTTCCGGACGGATGATGGCGTGGCTGGGGCGTCCGCACCCTGGAGAAGATTCCGA 840
I F R T D D G R G W G V R T L E K I R K
841 AGAACAGCTTCGTATGAGTACGTGGGAGAGATCATTACCTCAGAGAGGCAGAGCGGC 900
N S F V M E Y V G E I I T S E E A E R R
901 GGGCCAGATCTACGACCGTCAGGGCGCCACCTACCTCTTTGACCTGGACTACGTGGAGG 960
G Q I Y D R Q G A T Y L F D L D Y V E D
961 ACGTGTACACCGTGGATGCCGCCTACTATGCCAACATCTCCCACTTTGTCAACCACAGTT 1020
V Y T V D A A Y Y G N I S H F V N H S C
1021 GTGACCCCAACCTGCAGGTGTACAACGTCITCATAGACAACCTTGACGAGCGGCTGCCCC 1080
D P N L Q V Y N V F I D N L D E R L P R
1081 GCATCGCTTTCTTTGCCACAAGAACCATCCGGGCAGGCGAGGAGCTCACCTTTGATTACA 1140
I A F F A T R T I R A G E E L T F D Y N

FIG. 7A